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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/619,793 | 07/20/2000 | Daniel V. Cantrell | BW-406 | 3645 |

7590 05/21/2002

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EXAMINER

WALLS, DIONNE A

ART UNIT PAPER NUMBER

1731

5

DATE MAILED: 05/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/619,793 | CANTRELL, DANIEL V. | |
| | Examiner | Art Unit | |
| | Dionne A. Walls | 1731 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 February 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 7-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kopsch et al (US. Pat. No. 5,944,026) in view of Hampl, Jr. (US. Pat. No. 5,921,249) and Ross (US. Pat. No. 5,439,010).

Kopsch et al discloses a cigarette which may be wrapped with two layers of paper, the interior tobacco rod wrapping being of highly porous (10-20,000 CORESTA) paper which can be made mainly or entirely of suitable wood pulp (col. 9,lines 27-36). While Kopsch et al may not disclose that the inner wrap comprises 55 – 85 % wood fibers and 25-45% flax, or that the wood fiber is about 70% by weight and the flax fiber is about 30% by weight, Hampl, Jr. discloses that one method used for controlling the permeability of a wrapping paper is varying the fiber furnish that is used to make the paper. In general, it is known that if longer fibers are used to construct the wrapping paper, the paper will have a higher permeability (col. 1, lines 49-53). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the inner wrapping of Kopsch et al to include longer fibers in the papermaking furnish used to make said wrapping in order to ensure a highly permeable inner wrapping pursuant to the teaching of Hampl, Jr. While Kopsch et al modified by Hampl,

Jr. may not disclose that the longer fibers which are to be included in said highly porous wrapping is flax, Ross discloses a cigarette wrapper, designed to circumscribe a tobacco rod, which can comprise a mixture of wood-pulp fibers – having an average fiber length of .5 – 3.5 mm (corresponding to the claimed “softwood/hardwood”) - and longer, non-wood flax fibers. The cigarette wrapper of Ross may have a basis weight within 10-40 g/m² (corresponding to the claimed “basis weight of from about 12-15 g/m² /about 12 g/m²”). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the wrapper of Kopsch et al/Hampl, Jr. to include the flax/wood fiber composition of Ross because use of cellulosic fiber mixtures to comprise cigarette wrappers is known in the tobacco art as disclosed in Ross. Lastly, while Kopsch modified by Hampl, Jr. and Ross may not explicitly teach an inner wrapper having 55 – 85 % wood fibers and 25-45% flax, or wood fiber of about 70% by weight and flax fiber of about 30% by weight, it would have been obvious to one having ordinary skill in the art at the time of the invention to optimize the composition of the inner wrapper of Kopsch et al, which taught having a majority (if not, an entirety) of wood-based paper, by adding enough longer-length fibers to ensure a highly porous paper, pursuant to the teachings of Hampl, Jr., specifically flax fibers, as taught in Ross, and arrive at the claimed percentage of flax fibers, in order to achieve the optimum air-permeability of the cigarette wrapper.

3. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kopsch et al (US. Pat. No. 5,944,026) in view of Hampl, Jr. (US. Pat. No. 5,921,249)

and Ross (US. Pat. No. 5,439,010) as applied to the claims above, and further in view of Drewett et al (US. Pat. No. 5,172,708).

While Kopsch et al modified by Hampl, Jr. and Ross may not discloses that the softwood is pine or that the hard wood is eucalyptus, Drewett et al does disclose smoking articles having wrappers that comprise wither of these two types of soft/hard wood fibers (col. 7, lines 20-68). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to fabricate the inner wrapper of Kopsch et al modified by Hampl, Jr. and Ross to include either pine or eucalyptus as its wood fiber source because these types of woody fibers are known materials for cigarette paper fabrication in the tobacco art.

4. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kopsch et al (US. Pat. No. 5,944,026) in view of Hampl, Jr. (US. Pat. No. 5,921,249) and Ross (US. Pat. No. 5,439,010) as applied to claims 1-3, 7-9, and 11-13 above, and further in view of Schneider et al (US. Pat. No. 4,548,677).

While Kopsch modified by Hampl, Jr. and Ross may not teach that the flax is selected from the group consisting of 50-90% flax fibers and 10-50% shive flax fibers, Schneider et al discloses cigarette paper having from 20 – 50% bast fibers of flax (col. 1, lines 43-55). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate flax having 50% bast fibers (which falls in the claimed range of bast fibers) in order to benefit by its influence on diffusing carbon monoxide out of the cigarette as taught in Schneider et al (col. 1, lines 38-41).

Response to Arguments

5. Applicant's arguments filed on February 4th, 2002 have been fully considered but they are not persuasive.

- Applicant argues that Ross does not teach nor remotely suggest wood and flax, and their appropriate proportions in a mixture that would be utilized in the instant claimed inner wrap. Applicant also argues that Ross makes no distinction between the use of abaca fibers and wood fibers in the inner wrap; however, the Examiner disagrees and points to the above new grounds of rejection in which the Ross reference is still utilized for its teaching of a wood-flax pulp composition of a cigarette wrapper. It is clear from the disclosure of Ross that the inventor intended for a cigarette paper to be fabricated of wood and non-wood fibers, among the latter being flax fibers. While Ross may make no distinction between the use of abaca or flax with wood fibers, the disclosure does provide for a paper comprised of flax and wood fibers. Therefore, this teaching would have been useful to motivate one having ordinary skill in the art at the time of the invention to incorporate flax in a paper having a majority of wood fibers, in the claimed percentages, after optimizing the proportions based on the desired permeability of the wrapper - which follows the teaching of the combined references. Therefore, the use of the Ross reference is proper, in combination with the above-mentioned references, for teaching an inner cigarette wrapper having flax/wood proportion in the percentages as claimed.

- Applicant also argues that nowhere in the Drewett et al reference is there a teaching or suggestion of the double wrapper of the instant claimed invention; However, the Examiner submits that the use of the Drewett et al reference is strictly for the teaching that it is known to use either pine or eucalyptus wood as pulp fiber in cigarette paper. Given this teaching, one having ordinary skill in the art would have used this teaching, in combination with the other references, to provide a wrapper having softwood/hardwood fibers derived from these specific trees.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Cline et al (US. Pat. No. 4,225,636)

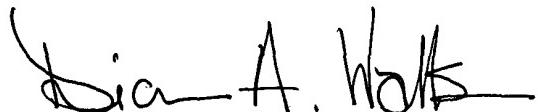
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne A. Walls whose telephone number is (703) 305-0933. The examiner can normally be reached on Mon-Fri, 7AM - 4:30PM (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.



Dionne A. Walls
May 18, 2002